

THURSDAY, OCTOBER 24, 1907.

WAY-SIDE FRUITS.

Wild Fruits of the Country-side. By F. Edward Hulme. Pp. x+221; illustrated. (London: Hutchinson and Co., 1907.) Price 3s. net.

THE subject of this book is one that may be most conveniently studied in the autumn season, when so many trees are in a fruiting condition. Mr. Hulme has written 221 pages, which are illustrated with thirty-six full-page coloured drawings, prepared by the author, and twenty-five half-tone pictures, which are reproductions from photographs. There are three chapters, and the species of plants are grouped into these chapters as follows:—Chapter i., plants of the hedgerows; chapter ii., trees of the forest; and chapter iii., plants of the moorland, the meadow and the stream.

The notes vary in length according to the estimated importance and interest of the species, and the text is largely composed of quotations from the old writers on the folk-lore of the species, and medicinal uses to which parts of the plants have been applied. The author attempts to trace in most cases the derivation of the names, and, in addition, supplies brief descriptions of the structure of the flowers and fruits. We have nothing but praise for the coloured plates, which in all instances appear sufficiently faithful to nature to enable the novice to identify the fruits, notwithstanding the drawings lack such botanical details as can only be shown after dissection of the fruits, and illustration of the sections. Those representing the common spindle tree (*Euonymus europæus*), hawthorn (*Crataegus oxyacantha*), sweet briar (*Rosa rubiginosa*), and oak (*Quercus Robur*) are especially commendable.

Having said so much as to the merits of the book, we cannot be silent in respect to its defects. The text has evidently been written hurriedly, and the composition needed more careful revision than has been exercised. The following sentence, for instance, is not more ambiguous than many others that might be selected from each chapter. On p. 13, in respect to the privet (*Ligustrum vulgare*) the author writes:—

“After these somewhat offensive or altogether delightful flowers succeed the berries, and these, if unmolested by the blackbirds, thrushes, bullfinches, and other birds to whom they are acceptable, remain on the plant throughout the winter.”

The punctuation is reproduced faithfully. Or, as on p. 203:—

“Large tracts have, however, of late years been ploughed up, a proceeding little to the benefit of anyone, and, so far as it goes, destructive of a wild beauty that might well have been suffered to remain, and which we, Staffordshire-born, can only regret the loss!”

On p. 14, in a sentence which refers to the privet, the word *generic* has been made to read *genuine*. On p. 52 the yew (*Taxus baccata*) is referred to as

a genuine ancient Briton,” but on p. 57 it is also described as “a welcome and sturdy guest,” which is surely suggestive of an exotic species rather than “an ancient Briton.”

The use that is made of capital letters is altogether inconsistent. In the headings all the specific names commence with capitals, a practice which is indefensible when applied to botanical nomenclature, yet on p. 181 *Viscum cruciatum*, when printed in the text, has no capitals, not even one for the generic name.

We can see no reason for the author adopting the out-of-date name *Sarothamnus* for the common broom, the correct name for which is *Cytisus*. The plant should be invariably described as *Cytisus scoparius*. The list of illustrations at the commencement of the book has probably escaped the author's revision after the type was set. This would explain the generic word *Rubus* being misspelt *Robus* in three instances, and *scoparius* misspelt *scaparius*.

The subject of this work is an extremely interesting one, and notwithstanding the imperfections we have mentioned, the book may be recommended to those who are about to spend a holiday in a country district, or to students in schools but especially to those who desire to acquire some knowledge of the folk-lore connected with some of the commonest fruiting plants in our native flora.

COSMOLOGICAL SPECULATION.

Two New Worlds. (1) The Infra-World; (2) The Supra-World. By E. E. Fournier d'Albe. Pp. ix+157. (London: Longmans and Co., 1907.) Price 3s. 6d. net.

THE first part of this book is an elaboration of an analogy already familiar to the scientific public. The Infra-world is a universe in which an earthly atom is a solar system: the positive atom is its sun, the electrons are its planets. The author points out that the scale of distances in our own and the infra-world is approximately in the ratio $10^{22}:1$, this being the ratio of the average diameters of our solar system and an atom. Further, the infra-year, measured by the period of revolution of an electron about its positive atom, is, for a particular case, reduced by the same factor. In this coincidence Mr. Fournier finds justification for regarding the world of atoms as a veritable universe on a smaller scale.

The detailed account of the Infra-world which is presented in the first six chapters, though interesting in itself, is perhaps to be regarded mainly as preparing the way for the conception of a Supra-world, in which our solar system functions as an atom. It is not possible here to discuss the reasoning by which the author seeks to establish the existence of ultragalactic universes; the arguments he employs are simple and reasonable, and will appeal strongly to the reader who is willing to be guided by probability in a region where logical certainty is at present unattainable. It is sufficient here to remark that the author's presentation of the Supra-world is based on the assumptions:—

"(1) That the material universe is infinite in three-dimensional space, and eternal both in the past and the future.

"(2) That the law of gravitation holds good throughout infinite space and time.

"(3) That the luminiferous ether has the same properties throughout space."

The Infra-world, our own universe, and the Supra-world are represented as three links in a chain of indefinite extent.

We learn from the preface that this book contains "an attempt to penetrate the mystery of space and time with the help of the most modern resources of scientific research." Mr. Fournier's success in achieving this object must depend upon what is required of one who penetrates a mystery. Certainly, the relativity of space and time could scarcely be more clearly and forcibly brought home than is done in these pages.

The limits of this notice do not permit a discussion of the author's speculations regarding the interrelation of "personality" in universes of different orders. The chief value of this work undoubtedly consists in the point of view which is here presented—a point of view which is valid for anyone who accepts the author's proof of the existence of universes of the next lower and higher orders to our own, whether he prefer to interpret conscious or subconscious activity in terms of motion, or matter in terms of consciousness.

Though necessarily incapable of verification, these speculations, which are well and clearly expressed, will hardly fail to evoke something more than a passing interest.

F. L. USHER.

CHEMICAL METHODS IN MEDICINE.

The Chemical Investigation of Gastric and Intestinal Diseases by the Aid of Test Meals. By Dr. Vaughan Harley and Dr. Francis W. Goodbody. Pp. viii+261. (London: Edward Arnold, 1906.) Price 8s. 6d. net.

THE continual increase in our knowledge of the physical mechanisms of the body necessitates a corresponding increase in the complexity of the methods which the physician has to employ in his endeavour to locate the seat of disease and to determine its character. Every year the medical man has therefore to start his career with expert knowledge of instruments and methods that were not dreamed of by his predecessors, and every year the extent of his armamentarium is added to by the growth of our knowledge of diseases. Many of these methods which the present-day practitioner has to acquire are physical, such as the use of the thermometer, of the stethoscope, the ophthalmoscope, and the various other instruments which have been devised for throwing light into the cavities of the body.

Until recently his chemical methods were practically limited to the testing of the urine for sugar and for coagulable protein. Disorders of digestion were, and in many cases still are, treated purely

empirically. Yet it cannot be a matter of indifference whether any given derangement of digestion has its primary seat in the stomach, the bowel, or the nervous system, whether it is accompanied with increase or diminution of the acid secretion of the stomach, or whether it is attended by an absolute failure on the part of the alimentary canal to assimilate in proper proportion to the food which is presented to it. It is of no use to label a series of drugs as good for indigestion, to administer them one after another, in default of knowledge on such important points as these. It is to aid the practitioner in his investigation of gastric and intestinal diseases by the latest methods that this book has been written.

Prof. Harley and Dr. Goodbody confine themselves entirely to the chemical methods, and even here are eclectic in treatment, mentioning only the methods which they have found during twelve years' trial of practical value.

It is to be hoped that the publication of this book may help to render more general the application of science to practice in the treatment of this important class of disease, since the book contains records of a number of analyses made by the authors on different patients, which furnish a useful guide to the results which may be expected in practice.

It is impossible to avoid the impression that the increased technical knowledge required for the diagnosis and treatment of disease must tend more and more to specialism along certain lines, and must handicap the private patient as compared with his poorer brother who is treated in a hospital. Without the resources of skilled assistance and a well-equipped laboratory, it is impossible for a busy practitioner to make all the investigations which are necessary to determine the diagnosis and to control the treatment of a number of cases of diseases. It is possible that in future years every consulting physician will regard a hospital for observation, and a private laboratory with skilled assistants, as necessary adjuncts to his consulting-room. At the present time, if the disease be one of doubt or difficulty, the pauper in the hospital has a better chance of enjoying the benefit of the latest discoveries than has the private patient.

We have no doubt that practitioners, whose time is not already entirely absorbed by the round of visits, will find this book of considerable value. It will not have failed of its object if it teaches such men to carry out a proper investigation of the gastric contents in cases of disordered digestion instead of simply guessing at the causation of the disorder. In one or two places the authors are hardly explicit enough for the purposes of those men who are working out the methods by themselves. Thus, on p. 31, no idea is given of what the colour-changes on titration of the gastric juice consist when dimethyl-amido-azo-benzol is used as an indicator, nor is the rationale of Töpfer's method for determining the acidity of gastric juice made sufficiently clear. These and a few other slight drawbacks can easily be amended in a subsequent edition.